

REMARKS

Claim 1 is amended; and claims 1-3 and 11-20 are pending in the application.

Pending claims 1-2 and 11-17 stand rejected as being anticipated by Ohshima, Henley (6,245,161), Henley (6,083,324) or Yonehara; and pending claims 3 and 18-20 stand rejected as being obvious over Ohshima. Applicant respectfully requests reconsideration of the rejections.

Referring first to claim 1, the claim is amended to clarify distinctions between the recited subject matter of claim 1 and the subject matter disclosed in the references. The amended claim recites a method in which a first substrate is formed to comprise a plurality of semiconductor-material-containing structures separated from one another by insulative material, with the semiconductor-material-containing structures containing uppermost regions that correspond to portions of an upper surface. The claim further recites that a second semiconductor substrate is formed to comprise a monocrystalline material having a damage region therein, and that the second semiconductor substrate is bonded to the semiconductor-material-containing structures at the upper surface. Additionally, the claim recites that the monocrystalline material is cleaved along the damage region.

An exemplary first substrate of the type recited in claim 1 is shown in the originally-filed application at, for example, Fig. 1 as a first substrate comprising semiconductor-material-containing structures 42, 44, 46, 48 and 52 having uppermost regions 43, 45, 47, 49 and 53, respectfully. The semiconductor-material-containing structures are separated from one another by insulative material 40, and the uppermost regions of the

semiconductor-material-containing structures correspond to portions of an uppermost surface.

An exemplary second substrate of the type recited in claim 1 is shown in, for example, Fig. 2 of the application.

Exemplary claim 1 recited bonding of the first and second substrates to one another is shown in Fig. 3 of the application, and exemplary claim 1 recited cleavage of the monocrystalline material of the second substrate is shown in Fig. 4 of the application.

Claim 1 is believed allowable over the cited references for at least the reason that the references do not suggest or disclose the recited formation of a first substrate comprising a plurality of semiconductor-material-containing structures separated from one another by insulative material, with the semiconductor-material-containing structures having uppermost regions which correspond to portions of an upper surface, and with the recited bonding of a second substrate to the recited upper surface. Specifically, applicant notes that not one of the Examiner's cited references suggests or discloses a substrate comprising a plurality of semiconductor-material-containing structures separated from one another by insulative material and having uppermost regions corresponding to portions of an upper surface. It is therefore inconceivable that the Examiner's cited references could suggest bonding of the claim 1 recited upper surface (in other words, the upper surface having portions corresponding to uppermost regions of semiconductor-material-containing structures separated from one another by insulative material) to a semiconductor substrate comprising a monocrystalline material. For at least this reason, claim 1 is not anticipated or rendered obvious by the Examiner's cited references. Applicant therefore requests formal allowance of claim 1 in the Examiner's next Action.

Claims 2 and 3 depend from claim 1, and are therefore allowable for least the reasons discussed above regarding claim 1, as well as for their own recited features which are neither shown or suggested by the cited references.

Referring next to claim 11, such recites a method in which a first semiconductor substrate is formed to comprise semiconductor-material-containing structures separated from one another by insulative material, with the semiconductor-material-containing structures and insulative material together defining a planarized upper surface. The claim further recites that a second semiconductor substrate is bonded to the planarized upper surface, and cleaved along a damage region.

Claim 11 thus contains limitations similar to those discussed above regarding claim 1 of an upper surface having semiconductor-material-containing separated semiconductor-material-containing structures, and of such upper surface being bonded to a semiconductor substrate. Claim 11 is therefore allowable for reasons similar to those discussed above regarding claim 1, and applicant therefore respectfully requests such allowance in the Examiner's next Action.

Claims 12-20 depend from claim 11, and are therefore allowable for least the reasons for which claim 11 is allowable, as well as for their own recited features which are neither shown or suggested by the cited references.

Pending claims 1-3 and 11-20 are allowable for the reasons discussed above, and applicant therefore respectfully requests that the Examiner's next Action be a Notice of Allowance formally allowing all of the pending claims.

Respectfully submitted,

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By: 

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